

### **FORM 424B4**

**ILLUMINA INC - ILMN** 

Filed: July 28, 2000 (period: )

Form of prospectus disclosing information facts events covered in both forms 424B1 424B3

Filed Pursuant to Rule 424(B)(4) Registration No. 333-33922

6,000,000 Shares

[LOGO OF ILLUMINA]

Common Stock

This is an initial public offering of shares of common stock of Illumina, Inc. All of the 6,000,000 shares of common stock are being sold by Illumina.

Prior to this offering, there has been no market for the common stock. The common stock has been approved for quotation on the Nasdaq National Market under the symbol "ILMN".

See "Risk Factors" beginning on page 8 to read about certain factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	\$16.00	\$96,000,000
Underwriting discount	\$ 1.12	\$ 6,720,000
Proceeds, before expenses, to Illumina	\$14.88	\$89,280,000

To the extent that the underwriters sell more than 6,000,000 shares of common stock, the underwriters have the option to purchase up to an additional 900,000 shares from Illumina at the initial public offering price less the underwriting discount.

----The underwriters expect to deliver the shares against payment in New York, New York on August 2, 2000.

Goldman, Sachs & Co.

Chase H&O

SG Cowen

\_\_\_\_\_ Prospectus dated July 27, 2000. Rapidly Commercializing Our BeadArray Technology for SNP Genotyping

We intend to rapidly commercialize our BeadArray technology for SNP genotyping through partnerships. Our first partner, PE Biosystems, contributes extensive expertise in instrument and reagent development, as well as a large and experienced worldwide sales and marketing team. We believe that the combination of our BeadArray technology with PE Biosystems' leadership position in the genetic analysis market will enable us to capture a significant portion of the SNP genotyping market.

Partnering With Multiple Companies To Expand Our Market Opportunity

We plan to pursue multiple partnerships to facilitate the expansion of our BeadArray and Oligator technologies and to exploit large and diverse markets. We expect to enter into partnerships and collaborations to gain access to complementary technologies, distribution channels and information content. We intend to structure partnerships that maximize our long-term commercial benefit by maintaining control of our technologies.

Expanding Our Technologies into Multiple Product Lines

We intend to utilize the flexibility of our BeadArray and Oligator technologies to develop multiple product lines. In addition to providing new sources of revenue, we believe these product lines will further our goal of establishing our BeadArray technology as the industry standard for array-based analysis. We expect these product lines to include a lower-throughput array system, handheld instruments, and a high capacity BeadArray system that will allow more simultaneous assays per sample. We intend to expand our Oligator technology by continuing to increase the capacity and cost effectiveness of our instrumentation.

Strengthening Our Technological Leadership

We plan to continue advancing our proprietary technologies through our internal research efforts, collaborations with industry leaders and strategic licensing. We may also pursue opportunistic acquisitions of complementary technologies and leverage our technologies into other value-added businesses.

Illumina's Technology

BeadArray Technology

Our proprietary BeadArray technology combines fiber optic bundles and specially prepared beads that self-assemble into an array.

Fiber Optic Bundles. We have the fiber optic bundles manufactured to our specifications, which we cut into lengths of less than one inch. Each bundle contains thousands to millions of individual fibers depending on the size of the bundle. For example, a fiber optic bundle with a diameter of approximately one millimeter could contain up to 50,000 individual fibers. Dipping the fiber optic bundles into a chemical solution etches a microscopic well at the end of each individual fiber within a bundle. In the preceding example, this process would create 50,000 microscopic wells per bundle.

Microscopic Beads. In a separate process, we create sensors by affixing a specific type of molecule to each of the billions of microscopic beads in a batch. We make different batches of beads, with the beads in a given batch coated with one particular type of molecule. The particular molecules on a bead define that bead's function as a sensor. For example, we create a batch of SNP sensors by attaching a particular DNA sequence to each bead in the batch. We combine batches of coated beads to form a pool specific to the type of array we intend to create. A bead pool one milliliter in volume contains sufficient beads to produce thousands of arrays.

BeadArray Sensors: Coating, Pooling and Self-Assembly

#### [GRAPHIC DESCRIPTION OF BEADARRAY SENSORS APPEARS HERE]

Array Self-Assembly and Decoding. To form an array we typically dip each fiber optic bundle into a pool of coated beads. The coated beads are drawn into the wells, one bead per well, on the end of each fiber in the bundle. We call this process self-assembly. The tens of thousands of beads at the end of the fiber optic bundle comprise our BeadArray. Because the beads assemble randomly into the wells, we perform a final procedure called decoding in order to determine which bead type occupies which well in the array. We employ several proprietary methods for decoding, a process that requires only a few steps to identify all the beads in the array. One beneficial by-product of the decoding process is a validation of each bead in the array. This quality control test characterizes the performance of each bead and can identify and eliminate use of any empty wells. We ensure that each bead type on the array is sufficiently represented by having multiple copies of each bead type. This improves the reliability and accuracy of the resulting data by allowing statistical processing of the results of identical beads.

Array Use in Experiments. One performs an experiment on the BeadArray by preparing a sample, such as DNA from a patient, and introducing it to the array. The design features of our BeadArray allow it to be simply dipped into a solution containing the sample. The molecules in the sample bind to their matching molecules on the coated bead. An analytical instrument detects the matched molecules by shining a laser through the fiber optic bundle. Since the molecules in the sample have a structure that causes them to emit light in response to a laser, detection of a binding event is possible. This allows the measurement of the number of molecules bound to each coated bead, resulting in a quantitative analysis of the sample.

#### Oligator Technology

Genomic applications require many different short pieces of DNA that can be made synthetically, called oligonucleotides. For example, SNP genotyping typically requires three to four different oligonucleotides per assay. A SNP genotyping experiment analyzing 10,000 SNPs may therefore require 30,000 to 40,000 different oligonucleotides, contributing significantly to the expense of the experiment.

#### MANAGEMENT

#### Directors and Executive Officers

Our directors and executive officers as of March 31, 2000 are as follows:

Name	Age	Position
## ## *** ***		
Jay T. Flatley	47	President, Chief Executive Officer and Director
Timothy M. Kish	48	Vice President, Chief Financial Officer
David L. Barker, Ph.D	59	Vice President, Chief Scientific Officer
John R. Stuelpnagel, DVM	42	Founder, Vice President of Business Development and Director
Mark S. Chee, Ph.D	38	Founder, Vice President of Genomics
Robert C. Kain	39	Vice President of Engineering
Noemi C. Espinosa	41	Vice President of Intellectual Property
Anthony W. Czarnik, Ph.D	42	Founder, Research Fellow, Former Chief Scientific Officer
Lawrence A. Bock	4.0	Founder
Charles M. Hartman(1)	. 58	Director
Robert T. Nelsen(1)(2)	. 36	Director
George Poste, DVM, Ph.D	. 55	Director
William H. Rastetter, Ph.D.(1)(2).	. 51	Director
David R. Walt, Ph.D	. 47	Founder, Director, Chairman of the Scientific Advisory Board

<sup>(1)</sup> Member of the Audit Committee.

Jay T. Flatley has served as our President, Chief Executive Officer and a Director since October 1999. Prior to joining Illumina, Mr. Flatley was cofounder, President, Chief Executive Officer and a Director of Molecular Dynamics, a life sciences company, from May 1994 to September 1999. He served in various other positions with that company from 1987 to 1994. From 1985 to 1987, Mr. Flatley was Vice President of Engineering and Vice President of Strategic Planning at Plexus Computers, a UNIX computer company. Mr. Flatley holds a B.A. in Economics from Claremont McKenna College and a B.S. and M.S. in Industrial Engineering from Stanford University.

Timothy M. Kish has served as our Vice President and Chief Financial Officer Timothy M. Kish has served as out the literature of the president, Finance and since May 2000. Prior to joining us, Mr. Kish was Vice President, Finance and Chief Financial Officer at Biogen, Inc., a biopharmaceutical company, from September 1993 to April 2000. He served as Corporate Controller of that company from 1986 to 1993. From 1983 to 1986, Mr. Kish was Director of Finance at Allied Health & Scientific Products Company, a subsidiary of Allied-Signal Corporation. Mr. Kish holds a B.B.A. from Michigan State University and an M.B.A. from the University of Minnesota M.B.A. from the University of Minnesota.

David L. Barker, Ph.D. has served as our Vice President and Chief Scientific officer since March 2000. Prior to joining us. Dr. Barker was Vice President and Chief Science Advisor at Amersham Pharmacia Biotech, a life sciences company, from September 1998 to March 2000. From May 1997 to September 1998, Dr. Barker was Vice President of Research and Business Development of Molecular Dynamics. From 1992 to 1997, he was Vice President of Scientific Development. From 1988 to 1995, he held various other positions with that company. Dr. Barker holds a B.S. in Chemistry from California Institute of Technology and received his Ph.D. in Biochemistry from Brandeis University.

<sup>(2)</sup> Member of the Compensation Committee.

John R. Stuelpnagel, D.V.M., one of our founders, is our Vice President of Business Development, acting Chief Financial Officer and a Director since April 1998. From April 1998 to October 1999, he served as Illumina's acting President and Chief Executive Officer. While founding Illumina, Dr. Stuelpnagel was an associate with CW Group, a venture capital firm, from June 1997 to September 1998 and with Catalyst Partners, a venture capital firm, from August 1996 to June 1997. Dr. Stuelpnagel received his B.S. in Biochemistry and his Doctorate in Veterinary Medicine from the University of California, Davis and his M.B.A. from the University of California, Los Angeles.

Mark S. Chee, Ph.D., one of our founders, has served as our Vice President of Genomics since June 1998. Prior to founding Illumina, Dr. Chee served as Director of Genetics Research at Affymetrix, a life sciences company, from April 1997 to July 1997 and in other positions from 1993 to April 1997. Dr. Chee received his B.Sc. in Biochemistry from the University of New South Wales and his Ph.D. from the University of Cambridge.

Robert C. Kain has served as our Vice President of Engineering since December 1999. Prior to joining us, Mr. Kain was Senior Director of Engineering at Molecular Devices from July 1999 to December 1999. Previously, Mr. Kain served as Director of Microarray Engineering at Molecular Dynamics from August 1998 to July 1999 and in other positions from August 1996 to August 1998. From 1983 to 1988, Mr. Kain was employed at Datagraphix, an information technology equipment company. Mr. Kain received his B.S. in Physics from San Diego State University and his M.B.A. from St. Mary's College.

Noemi C. Espinosa has served as our Vice President of Intellectual Property since May 2000. Prior to joining us, Ms. Espinosa was a partner with the firm of Brobeck, Phleger & Harrison LLP from January 1992 to April 2000, having joined the firm in 1990. From 1983 to 1990, Ms. Espinosa was associated with the intellectual property firm of Townsend & Townsend. Ms. Espinosa holds a B.S. in Chemical Engineering and a J.D. from the University of California, Hastings College of Law. She is registered to practice before the United States Patent and Trademark Office.

Anthony W. Czarnik, Ph.D., one of our founders, has been a Research Fellow at Illumina since March 2000. From June 1998 to March 2000, he served as Illumina's Chief Scientific Officer. Prior to joining Illumina, Dr. Czarnik was Vice President of Chemistry at IRORI Quantum Microchemistry from 1996 to 1998 and Director of Bioorganic Chemistry at Parke-Davis from 1993 to 1996. Previously, he was a professor at The Ohio State University. Dr. Czarnik received his B.S. in Biochemistry from the University of Wisconsin-Madison and his Ph.D. from the University of Illinois at Urbana/Champaign.

Lawrence A. Bock, one of our founders, served as a Director from June 1998 to March 2000. He has been a General Partner of CW Group, a medical venture capital fund, since June 1998. From 1988 to 1998, Mr. Bock was General Partner of Avalon Ventures, a venture capital firm. He is also founder and Director of fastTrack Systems, Inc. Mr. Bock holds a B.S. in Biochemistry from Bowdoin College and an M.B.A. from the University of California, Los Angeles.

Charles M. Hartman has been a Director since March 2000. He has been a General Partner of CW Group since April 1983. Mr. Hartman is a Director of Caliper Technologies Corp. (Nasdaq: CALF). From 1966 to 1983, Mr. Hartman served in various positions at Johnson & Johnson, a healthcare company, where he was responsible for identification, evaluation and negotiation of situations ranging from single product opportunities to company acquisitions, both domestically and internationally. Mr. Hartman is a Director of The Hastings Center, a non-profit organization devoted to the study of bioethical issues in medicine and the life sciences. Mr. Hartman holds a B.S. in Chemistry from the University of Notre Dame and an M.B.A. from the University of Chicago.

Robert T. Nelsen has been a Director since June 1998. Since July 1994, Mr. Nelsen has served as a senior principal of venture capital funds associated with ARCH Venture Partners, a venture

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#### PRINCIPAL STOCKHOLDERS

The following table sets forth information known to us with respect to the beneficial ownership of our common stock as of March 31, 2000 and as adjusted to reflect the sale of common stock offered hereby by:

- . each stockholder known by us to own beneficially more than five percent of our common stock;
- each of the named executive officers listed in the Summary Compensation Table on page 40;
- . each of our directors; and
- all of our directors and the named executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to stock options and warrants currently exercisable or exercisable within 60 days are deemed to be outstanding for computing the percentage ownership of the person holding these options and the percentage ownership of any group of which the noiding these options and the percentage ownership of any group of which the holder is a member, but are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. Some of the shares of common stock held by our directors, officers and consultants are subject to repurchase rights in our favor. For a discussion of these repurchase rights favor. For a discussion of these repurchase rights, see "Related Party Transactions."

	Number of Shares Beneficially	Percent of Shares Beneficially Owned		
Name and Address	the Offering	Before Offering(1)	After Offering	
CW Group(2)	4,991,464	19.5%	15.8%	
ARCH Venture Fund III, L.P.(3)	3,615,299	14.2	11.5	
Chicago, IL 60631 Venrock Associates(4) 30 Rockefeller Plaza, Room 5508	3,269,997	12.8	10.4	
New York, NY 10112 TGI Fund II, L.C.(5) 6501 Columbia Center 701 Fifth Avenue	1,748,621	6.8	5.5	
Seattle, WA 98104 David R. Walt(6)62 Talbot Avenue	1,374,338	5.4	4.4	
Medford, MA 02155 PE Corporation 50 Danbury Road	1,250,000	4.9	4.0	
Wilton, CT 06897	992,000	3.9	3.1	
Jay T. Flatley(7)	992,000	3.6	2.9	
Mark S. Chee	•	2,8	2.3	
John R. Stuelpnagel		1.7	1.3	
Anthony W. Czarnik		1.5	1.2	
Timothy M. Kish		1.1	*	
Richard J. Pytelewski		1.0	*	
David L. Barker		*	•	

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